Personnel protective equipment

Lesson topic 4.4

Enabling objectives

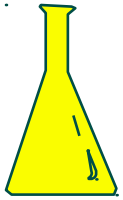
- Describe the function of personal protective equipment consisting of CPO, ACPG, MCU-2P protective mask, boots & glove set to include: Component characteristics & functions
- Explain abnormal conditions associated with personal protective equipment

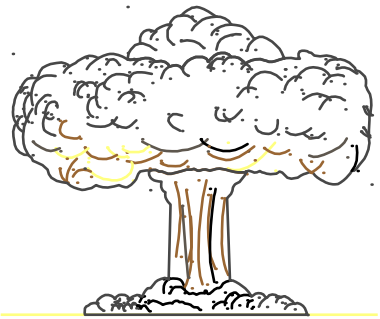
Enabling objectives

- Describe the operation to include donning/doffing procedures for personal protective equipment to include: Theory of operation, Pre-operational procedures

Purpose

- Personal Protective Equipment provides protection against eye, respiratory & skin hazards from chemical, biological agents & radioactive fallout particles





MCU-2/P Protective Mask

- Eye-respiratory & facial skin protection
- Available in three sizes
  - Small, medium, large
- Face piece
  - Unimolded silicone rubber
  - Size determined by measuring the distance from the bridge of the nose to the bottom of the chin

MCU-2/P Protective Mask

- Lens
  - Distortion free view
  - Optically clear urethane
  - Wide field of vision
- Front Voicemitter
- Side Voicemitter

MCU-2/P Protective Mask

Lens

Voicemitters

MCU-2/P Protective Mask

- Head Harness
  - Six metal tipped elastic straps
  - Quick donning tab
- Nose Cup
  - Silicone rubber
  - Covers nose & mouth
  - Inlet valve disks, reduces fogging

MCU-2/P Protective Mask

- Internal Drinking Tube
- Drinking Tube
  - M1 Canteen Cap
- Outlet Valve Cover
  - Protects the outlet valve
  - Holds external drinking tube

MCU-2/P Protective Mask

utlet valve cover &
drinking tube

MCU-2/P Protective Mask

- Outlet Valve Assembly
  - One-way valve
  - Silicone rubber disk
  - mesh screen prevents dislodging
- Inlet Valve Assembly
  - One-way valve behind canister
  - Can be switched to other side

MCU-2/P Protective Mask

- C-2 canister
  - Charcoal filter
  - NATO threads
  - 3 per mask

Canister change out requirements

- Exceeds 5 year shelf life
- 30 days in contaminated environment (One shot of blood agent)
- 60 days in non-contaminated environment
- Charcoal is wet
- Canister damaged
- Excessive breathing resistance
- Charcoal dust is on face after use
- CO directs

Mask accessories

- Carrier
  - Mildew resistant nylon
  - Water-proof bag used to stow MCU-2/P
- Outsert
  - Optically clear shell

Chemical Protective Overgarment (CPO) Smock

- Sizes - small, medium, large, & extra large
- Equipped with
  - Attached hood & drawstring
  - Cargo pocket
  - Patch on left arm for detector paper
  - Velcro fasteners on the waist and at the bottom of the sleeves

CPO Smock

CPO Trousers

- Sizes - small, mediu
  large, & extra lar
- Equipped with
  - Suspenders
  - Velcro fasteners on
    waist & bottom of leg

CPO

- Outer layer Modacrylic Nylon
- Inner layer anti-gas charcoal
- Change out requirements
  - 10 years protective bag
  - 100 hours cumulative wear time
  - 30 days in a non-contaminated environment
  - 6 hours in a contaminated environment

Chemical Protective Footwear Covers

- Sizes are small & large
- Butyl Rubber, Non-slip soles
- Capabilities
  - Indefinite shelf life when in bag
  - 24 hours in a contaminated environment
  - Protects from liquid chemical agent

Chemical Protective Glove Set

- Sizes - extra small, small, medium, large & extra large
- Butyl Rubber
- Inner cotton liners adsorb body moisture

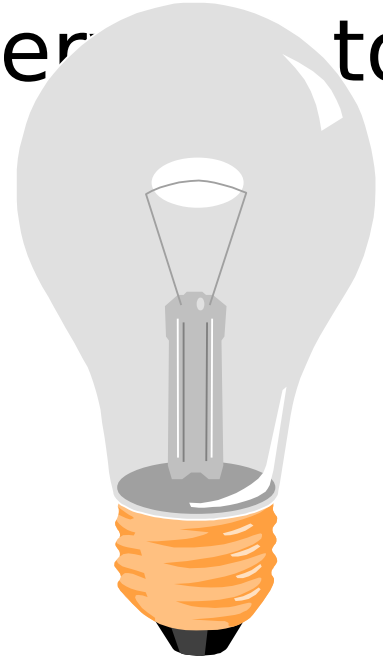
PROTECTIVE GLOVES ARE NOT O BE USED FOR ELECTRICAL WOR

Chemical Protective Glove Set

- Capabilities
  - Indefinite shelf life
  - Provides at least 6 hrs in a contaminated environment
  - Protects from liquid chemical agent

Advanced Chemical Protective Garment (ACPG)

- Designed under Joint Service Lightweight Integrated Suit Technology (JSLIST) program enabling all ser to use the same suit



ACPG Jacket

- Sizes - small extra short, small short, medium regular, medium long, large long
- Equipped with
  - Hood with draw cord
  - Velcro fasteners - wrists and elasticized drawstring at waist
  - Zippered front closure with velcro fastened flap

ACPG Jacket

- Pocket on left sleeve
- Elastic loop attached to the bottom back of the jacket to keep it from riding up & exposing the wearer's back

ACPG Trousers

- Equipped with
  - High waist with adjustable suspenders
  - Velcro fasteners at the waist & ankles
  - Cargo pockets
  - Zippered closure
- Material for smock & trousers
  - Camouflaged outer layer with activated charcoal inner layer

Capabilities

- Washings - 6 are permitted
- Uncontaminated wear life is 45 days
- Contaminated wear life is 24 hours
- 120 days in a non-contaminated environment out of sealed bag

ACPG

- Chemical Protective Footwear Covers same foot wear set used with CPO
- Chemical Protective Glove Set same glove set used with CPO

Wet Weather Clothing

- Worn over the CPO or ACPG
  - Provides extra protection from liquid chemical agent droplets & solid particulate & to prevent garments from getting soaked by countermeasure wash down system or sea spray

Wet Weather Clothing

- Parka
  - Jacket style
  - Hood with a draw cord, visor, and adjustable fastener straps
- Overalls
  - Bib front with elastic suspenders

HEAT STRESS!

Review and Summary

- MCU-2P protective mask
- Chemical Protective Overgarment - CPO
- Advanced Chemical Protective Overgarment - ACPG
- Wet Weather Clothing